

## Ozone 2

### 5.6.4 State the effects of ultraviolet radiation on living tissues and biological productivity

#### Animals

- UV-B associated w/ eye damage, cataracts, sunburn, & skin cancers
- UV-B also associated with decreased immunity

UV-B causes mutations which leads to cancers

#### Plants

- Some crops are UV-B sensitive → reduced yield
- Scientists may be able to develop UV-B resistant crops/trees  
⇒ Reduced Productivity
- In aquatic ecosystems phytoplankton live in upper water columns → damage during early life cycle.  
\* young are esp. @ risk

### 5.6.5 Describe three methods of reducing the manufacture and release of ozone-depleting substances

#### \* Alter human activity

- Replace gas-blown plastics
- Replace CFCs w/ CO<sub>2</sub>, propane or air as a propellant
- Replace aerosol propellants
- Replace methyl bromide pesticides

#### \* Regulate & Reduce Pollutants

- Recover & Recycle CFCs from refrigerators & air-conditioning
- Legislate to have refrigerators returned to manufacturer
- Capture CFCs from scrap cars

#### \* Clean up & Restore

- add ozone to or remove chlorine from stratosphere → NOT PRACTICAL

5.6.6 Describe and evaluate the role of national and international organizations in reducing the emissions of ozone-depleting substances

